

# West Virginia Department of Environmental Protection Division of Air Quality

Joe Manchin III Governor Stephanie R. Timmermeyer Cabinet Secretary

# Permit to Operate



Pursuant to

Title V

of the Clean Air Act

Issued to:

Dominion Transmission, Inc. Schutte Compressor Station R30-01700100-2006

> John A. Benedict Director

Issued: May 16, 2006 • Effective: May 30, 2006

Expiration: May 16, 2011 • Renewal Application Due: November 16, 2010

Permit Number: **R30-01700100-2006**Permittee: **Dominion Transmission, Inc**Facility Name: **Schutte Compressor Station**Mailing Address: 445 West Main Street

Clarksburg, WV 26301

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45CSR30 — Requirements for Operating Permits. The permittee identified at the above-referenced facility is authorized to operate the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Facility Location: Sedlia, Doddridge County, West Virginia Mailing Address: Route 2, Box 210, Salem, WV 26426

Telephone Number: (304) 782-1662 Type of Business Entity: Corporation

Facility Description: Natural gas transmission facility

SIC Codes: 4922

UTM Coordinates: 534.46 km Easting • 4357.67 km Northing • Zone 17

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§ 22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §22-5-14.

Issuance of this Title V Operating Permit does not supersede or invalidate any existing permits under 45CSR13, 14 or 19, although all applicable requirements from such permits governing the facility's operation and compliance have been incorporated into the Title V Operating Permit.

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# 1.0 Emission Units and Active R13, R14, and R19 Permits

# 1.1. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
EN01*	EN01	Reciprocating Engine/Integral Compressor; Cooper, GMV-6TF	1985	660 HP	N/A
EN02*	EN02	Reciprocating Engine/Integral Compressor; Cooper, GMV-6TF	1985	660 HP	N/A
EN03*	<u>EN03</u>	Reciprocating Engine/Integral Compressor; Ajax,DPC-2803LE	2009	<u>600 HP</u>	<u>N/A</u>
DEHY01*	DEHY01	Dehydration unit still; NATCO	<u>2009</u> <u>198</u> 4	10 mmcf/day 6.75 mmscf/day	Flare N/A
F1 DEHY*	F1 DEHY	Glycol Dehydration unit flare	<u>2009</u> <u>1984</u>	10 MMBtu/hr 32.8 cfm	N/A
RBR01*	RBR01	Dehydration unit reboiler; NATCO, <del>5GR 235</del> 600/100	<u>2009</u> <del>1984</del>	1.0 MMBtu/hr 0.25 MMBTU/hr	N/A <u>F1</u>
HTR01*	HTR01	Pipeline heater #1; Bruest, R12N	1984	4000 BTU/hr	N/A
TK01	TK01	Horizontal, above ground tank containing Ethylene Glycol	1984	2000 gallon	N/A
TK02	TK02	Horizontal, above ground tank containing Tri- Ethylene Glycol	1984	300 gallon	N/A
TK03	TK03	Horizontal, above ground tank containing Engine Oil	2003	3000 gallon	N/A
TK04	TK04	Horizontal, above ground tank containing Drip Gas	2003	3000 gallon	N/A
TK05	TK05	Horizontal, above ground tank containing condensate water	2003	230 gallon	N/A
TK06	TK06	Vertical, above ground tank containing waste water	2003	500 gallon	N/A

<sup>\*</sup> This equipment burns or combusts pipeline quality natural gas only.

# 1.2 Active R13, R14, and R19 Permits

The underlying authority for any conditions from R13, R14, and/or R19 permits contained in this operating permit is cited using the original permit number (e.g. R13-1234). The current applicable version of such permit(s) is listed below.

Permit Number	Date of Issuance
<u>R13-2778</u>	11/03/2008

#### 2.0 General Conditions

#### 2.1. Definitions

- 2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.
- 2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.
- 2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.

#### 2.2. Acronyms

CAAA	Clean Air Act Amendments	$NO_x$	Nitrogen Oxides
CBI	Confidential Business Information	NSPS	New Source
CEM	Continuous Emission Monitor		Performance Standards
CES	Certified Emission Statement	PM	Particulate Matter
C.F.R. or CFR	Code of Federal Regulations	$PM_{10}$	Particulate Matter less
CO	Carbon Monoxide		than 10µm in diameter
C.S.R. or CSR	Codes of State Rules	pph	Pounds per Hour
DAQ	Division of Air Quality	ppm	Parts per Million
DEP	Department of Environmental	PSD	Prevention of Significant
	Protection		Deterioration
FOIA	Freedom of Information Act	psi	Pounds per Square Inch
HAP	Hazardous Air Pollutant	SIC	Standard Industrial
HON	Hazardous Organic NESHAP		Classification
HP	Horsepower	SIP	State Implementation
lbs/hr or lb/hr	Pounds per Hour		Plan
LDAR	Leak Detection and Repair	$SO_2$	Sulfur Dioxide
M	Thousand	TAP	Toxic Air Pollutant
MACT	Maximum Achievable Control	TPY	Tons per Year
	Technology	TRS	Total Reduced Sulfur
MM	Million	TSP	Total Suspended
MMBtu/hr or	Million British Thermal Units per		Particulate
mmbtu/hr	Hour	USEPA	United States
MMCF/hr or	Million Cubic Feet Burned per		Environmental
mmcf/hr	Hour		Protection Agency
NA	Not Applicable	UTM	Universal Transverse
NAAQS	National Ambient Air Quality		Mercator
	Standards	VEE	Visual Emissions
NESHAPS	National Emissions Standards for		Evaluation
	Hazardous Air Pollutants	VOC	Volatile Organic
			Compounds

#### 2.3. Permit Expiration and Renewal

2.3.1. Permit duration. This permit is issued for a fixed term of five (5) years and shall expire on the date specified on the cover of this permit, except as provided in 45CSR§30-6.3.b. and 45CSR§30-6.3.c.

[45CSR§30-5.1.b.]

2.3.2. A permit renewal application is timely if it is submitted at least six (6) months prior to the date of permit expiration.

[45CSR§30-4.1.a.3.]

2.3.3. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with 45CSR§30-6.2. and 45CSR§30-4.1.a.3.

[45CSR§30-6.3.b.]

2.3.4. If the Secretary fails to take final action to deny or approve a timely and complete permit application before the end of the term of the previous permit, the permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time.

[45CSR§30-6.3.c.]

#### 2.4. Permit Actions

2.4.1. This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

[45CSR§30-5.1.f.3.]

#### 2.5. Reopening for Cause

- 2.5.1. This permit shall be reopened and revised under any of the following circumstances:
  - a. Additional applicable requirements under the Clean Air Act or the Secretary's legislative rules become applicable to a major source with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 45CSR§§30-6.6.a.1.A. or B.
  - b. Additional requirements (including excess emissions requirements) become applicable to an affected source under Title IV of the Clean Air Act (Acid Deposition Control) or other legislative rules of the Secretary. Upon approval by U.S. EPA, excess emissions offset plans shall be incorporated into the permit.
  - c. The Secretary or U.S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
  - d. The Secretary or U.S. EPA determines that the permit must be revised or revoked and reissued to assure compliance with the applicable requirements.

#### [45CSR§30-6.6.a.]

#### 2.6. Administrative Permit Amendments

2.6.1. The permittee may request an administrative permit amendment as defined in and according to the procedures specified in 45CSR§30-6.4.

[45CSR§30-6.4.]

#### 2.7. Minor Permit Modifications

2.7.1. The permittee may request a minor permit modification as defined in and according to the procedures specified in 45CSR§30-6.5.a.

[45CSR§30-6.5.a.]

#### 2.8. Significant Permit Modification

2.8.1. The permittee may request a significant permit modification, in accordance with 45CSR§30-6.5.b., for permit modifications that do not qualify for minor permit modifications or as administrative amendments.

[45CSR§30-6.5.b.]

# 2.9. Emissions Trading

2.9.1. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit and that are in accordance with all applicable requirements.

[45CSR§30-5.1.h.]

#### 2.10. Off-Permit Changes

- 2.10.1. Except as provided below, a facility may make any change in its operations or emissions that is not addressed nor prohibited in its permit and which is not considered to be construction nor modification under any rule promulgated by the Secretary without obtaining an amendment or modification of its permit. Such changes shall be subject to the following requirements and restrictions:
  - a. The change must meet all applicable requirements and may not violate any existing permit term or condition.
  - b. The permittee must provide a written notice of the change to the Secretary and to U.S. EPA within two (2) business days following the date of the change. Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.
  - c. The change shall not qualify for the permit shield.
  - d. The permittee shall keep records describing all changes made at the source that result in emissions of regulated air pollutants, but not otherwise regulated under the permit, and the emissions resulting from those changes.

- e. No permittee may make any change subject to any requirement under Title IV of the Clean Air Act (Acid Deposition Control) pursuant to the provisions of 45CSR§30-5.9.
- f. No permittee may make any changes which would require preconstruction review under any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) pursuant to the provisions of 45CSR§30-5.9.

[45CSR§30-5.9.]

#### 2.11. Operational Flexibility

2.11.1. The permittee may make changes within the facility as provided by § 502(b)(10) of the Clean Air Act. Such operational flexibility shall be provided in the permit in conformance with the permit application and applicable requirements. No such changes shall be a modification under any rule or any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) promulgated by the Secretary in accordance with Title I of the Clean Air Act and the change shall not result in a level of emissions exceeding the emissions allowable under the permit.

[45CSR§30-5.8]

2.11.2. Before making a change under 45CSR§30-5.8., the permittee shall provide advance written notice to the Secretary and to U.S. EPA, describing the change to be made, the date on which the change will occur, any changes in emissions, and any permit terms and conditions that are affected. The permittee shall thereafter maintain a copy of the notice with the permit, and the Secretary shall place a copy with the permit in the public file. The written notice shall be provided to the Secretary and U.S. EPA at least seven (7) days prior to the date that the change is to be made, except that this period may be shortened or eliminated as necessary for a change that must be implemented more quickly to address unanticipated conditions posing a significant health, safety, or environmental hazard. If less than seven (7) days notice is provided because of a need to respond more quickly to such unanticipated conditions, the permittee shall provide notice to the Secretary and U.S. EPA as soon as possible after learning of the need to make the change.

[45CSR§30-5.8.a.]

- 2.11.3. The permit shield shall not apply to changes made under 45CSR§30-5.8., except those provided for in 45CSR§30-5.8.d. However, the protection of the permit shield will continue to apply to operations and emissions that are not affected by the change, provided that the permittee complies with the terms and conditions of the permit applicable to such operations and emissions. The permit shield may be reinstated for emissions and operations affected by the change:
  - a. If subsequent changes cause the facility's operations and emissions to revert to those authorized in the permit and the permittee resumes compliance with the terms and conditions of the permit, or
  - b. If the permittee obtains final approval of a significant modification to the permit to incorporate the change in the permit.

[45CSR§30-5.8.c.]

2.11.4. "Section 502(b)(10) changes" are changes that contravene an express permit term. Such changes do not include changes that would violate applicable requirements or contravene enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements. [45CSR\$30-2.39]

#### 2.12. Reasonably Anticipated Operating Scenarios

- 2.12.1. The following are terms and conditions for reasonably anticipated operating scenarios identified in this permit.
  - a. Contemporaneously with making a change from one operating scenario to another, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating and to document the change in reports submitted pursuant to the terms of this permit and 45CSR30.
  - b. The permit shield shall extend to all terms and conditions under each such operating scenario; and
  - c. The terms and conditions of each such alternative scenario shall meet all applicable requirements and the requirements of 45CSR30.

[45CSR§30-5.1.i.]

#### 2.13. Duty to Comply

2.13.1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

[45CSR§30-5.1.f.1.]

#### 2.14. Inspection and Entry

- 2.14.1. The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:
  - At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's
    premises where a source is located or emissions related activity is conducted, or where records must be
    kept under the conditions of this permit;
  - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
  - Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution Control equipment), practices, or operations regulated or required under the permit;
  - d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

[45CSR§30-5.3.b.]

#### 2.15. Schedule of Compliance

- 2.15.1. For sources subject to a compliance schedule, certified progress reports shall be submitted consistent with the applicable schedule of compliance set forth in this permit and 45CSR§30-4.3.h., but at least every six (6) months, and no greater than once a month, and shall include the following:
  - <u>a.</u> Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and
  - <u>b.</u> An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measure adopted.

[45CSR§30-5.3.d.]

#### 2.16. Need to Halt or Reduce Activity not a Defense

2.16.1. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.

[45CSR§30-5.1.f.2.]

#### 2.17. Emergency

2.17.1. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

[45CSR§30-5.7.a.]

- 2.17.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of 45CSR§30-5.7.c. are met. [45CSR§30-5.7.b.]
- 2.17.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
  - a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
  - b. The permitted facility was at the time being properly operated;
  - c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

d. Subject to the requirements of 45CSR§30-5.1.c.3.C.1, the permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice, report, and variance request fulfills the requirement of 45CSR§30-5.1.c.3.B. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

[45CSR§30-5.7.c.]

2.17.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

[45CSR§30-5.7.d.]

2.17.5. This provision is in addition to any emergency or upset provision contained in any applicable requirement. [45CSR§30-5.7.e.]

#### 2.18. Federally-Enforceable Requirements

- 2.18.1. All terms and conditions in this permit, including any provisions designed to limit a source's potential to emit and excepting those provisions that are specifically designated in the permit as "State-enforceable only", are enforceable by the Secretary, USEPA, and citizens under the Clean Air Act.

  [45CSR§30-5.2.a.]
- 2.18.2. Those provisions specifically designated in the permit as "State-enforceable only" shall become "Federally-enforceable" requirements upon SIP approval by the USEPA.

#### 2.19. Duty to Provide Information

2.19.1. The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records required to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 C.F.R. Part 2.

[45CSR§30-5.1.f.5.]

#### 2.20. Duty to Supplement and Correct Information

2.20.1. Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.

[45CSR§30-4.2.]

#### 2.21. Permit Shield

2.21.1. Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance provided that such applicable requirements are included and are specifically identified in this permit or the Secretary has determined that other requirements specifically identified are not applicable to the source and this permit includes such a determination or a concise summary thereof.

[45CSR§30-5.6.a.]

- 2.21.2. Nothing in this permit shall alter or affect the following:
  - a. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance; or
  - b. The applicable requirements of the Code of West Virginia and Title IV of the Clean Air Act (Acid Deposition Control), consistent with § 408 (a) of the Clean Air Act.
  - c. The authority of the Administrator of U.S. EPA to require information under § 114 of the Clean Air Act or to issue emergency orders under § 303 of the Clean Air Act.

[45CSR§30-5.6.c.]

#### 2.22. Credible Evidence

2.22.1. Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee including but not limited to any challenge to the credible evidence rule in the context of any future proceeding.

[45CSR§30-5.3.e.3.B. and 45CSR38]

#### 2.23. Severability

2.23.1. The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid by a court of competent jurisdiction, the remaining permit terms and conditions or their application to other circumstances shall remain in full force and effect.

[45CSR§30-5.1.e.]

#### 2.24. Property Rights

2.24.1. This permit does not convey any property rights of any sort or any exclusive privilege.

[45CSR§30-5.1.f.4]

#### 2.25. Acid Deposition Control

2.25.1. Emissions shall not exceed any allowances that the source lawfully holds under Title IV of the Clean Air Act (Acid Deposition Control) or rules of the Secretary promulgated thereunder.

- a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid deposition control program, provided that such increases do not require a permit revision under any other applicable requirement.
- b. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement.
- c. Any such allowance shall be accounted for according to the procedures established in rules promulgated under Title IV of the Clean Air Act.

[45CSR§30-5.1.d.]

2.25.2. Where applicable requirements of the Clean Air Act are more stringent than any applicable requirement of regulations promulgated under Title IV of the Clean Air Act (Acid Deposition Control), both provisions shall be incorporated into the permit and shall be enforceable by the Secretary and U. S. EPA.

[45CSR§30-5.1.a.2.]

#### 3.0 Facility-Wide Requirements

#### 3.1. Limitations and Standards

3.1.1. **Open burning.** The open burning of refuse by any person, firm, corporation, association or public agency is prohibited except as noted in 45CSR§6-3.1.

[45CSR§6-3.1.]

3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause, suffer, allow or permit any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.

[45CSR§6-3.2.]

3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). A copy of this notice is required to be sent to the USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health.

[40 C.F.R. 61 and 45CSR15]

3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.

[45CSR§4-3.1 State-Enforceable only.]

3.1.5. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11.

[45CSR§11-5.2]

3.1.6. **Emission inventory.** The permittee is responsible for submitting, on an annual basis, an emission inventory in accordance with the submittal requirements of the Division of Air Quality.

[W.Va. Code § 22-5-4(a)(14)]

- 3.1.7. **Ozone-depleting substances.** For those facilities performing maintenance, service, repair or disposal of appliances, the permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 C.F.R. Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
  - a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the prohibitions and required practices pursuant to 40 C.F.R. §§ 82.154 and 82.156.
  - b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 C.F.R. § 82.158.

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 C.F.R. § 82.161.

[40 C.F.R. 82, Subpart F]

3.1.8. **Risk Management Plan.** Should this stationary source, as defined in 40 C.F.R. § 68.3, become subject to Part 68, then the owner or operator shall submit a risk management plan (RMP) by the date specified in 40 C.F.R. § 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 C.F.R. Part 70 or 71.

[40 C.F.R. 68]

3.1.9. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an instack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in 45CSR§10-4.1.a through 45CSR§10-4.1.e.

[45CSR§10-4.1] [DEHY01, DEHY F1]

3.1.10. No person shall cause, suffer, allow or permit the combustion of any refinery process gas stream or any other process gas stream that contains hydrogen sulfide in a concentration greater than 50 grains per 100 cubic feet of gas except in the case of a person operating in compliance with an emission control and mitigation plan approved by the Director and U. S. EPA. In certain cases very small units may be considered exempt from this requirement if, in the opinion of the Director, compliance would be economically unreasonable and if the contribution of the unit to the surrounding air quality could be considered negligible.

[45CSR§10-5.1] [DEHY01, DEHY F1]

3.1.11. No person shall cause, suffer, allow or permit fugitive particulate matter to be discharged beyond the boundary lines of the property on which the discharge originates or at any public or residential location, which causes or contributes to statutory air pollution.

[45CSR§17-3.1; State Enforceable Only]

- 3.1.12 Minor Source of Hazardous Air Pollutants (HAP). HAP emissions from the facility shall be less than 10 tons/year of any single HAP or 25 tons/year of any combination of HAPs. Compliance with this Section shall ensure that the facility is a minor HAP source.

  [45CSR13, R13-2778, 4.1.2.]
- 3.1.13 Operation and Maintenance of Air Pollution Control Equipment. The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.

  [45CSR§13-5.11., 45CSR13, R13-2778, 4.1.3.]

#### **3.2.** Monitoring Requirements

3.2.1. Visual emission checks of each emission point specified shall be conducted monthly. If during these checks or at any other time visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with Method 9 of 40 C.F.R. 60, Appendix A. Records shall be maintained on site stating the date and time of each visible emission check and whether visible emissions were observed. Visible emission checks shall not be required during start-ups, shut-downs and malfunctions.

[45CSR§30-5.1.c] [DEHY F1]

3.2.2. At a minimum of once per year, sample and analyze the inlet gas stream to the station utilizing gas chromatography for the presence of Sulfur. Proof of compliance with the 2000 ppm<sub>v</sub> SO<sub>2</sub> limit will be considered demonstrated if the gas chromatograph shows a total sulfur content of 5.94 grains/100 ft<sup>3</sup> or less. Records shall be maintained on site or at a reasonable available location stating the date and sulfur content of the gas sampled.

[45CSR§30-5.1.c] [DEHY F1, DEHY01]

3.2.3. At a minimum of once per year, sample and analyze the inlet gas stream to the station utilizing gas chromatography for the presence of H<sub>2</sub>S. Proof of compliance with the 50 grains/100ft<sup>3</sup> limit will be considered demonstrated if the gas chromatograph shows a total H<sub>2</sub>S content of 0.1188 grains/100 ft<sup>3</sup> or less. Records shall be maintained on site or at a reasonably available location stating the date and hydrogen sulfide content of the gas sampled.

[45CSR§30-5.1.c] [DEHY F1, DEHY01]

#### 3.3. Testing Requirements

- 3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:
  - a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 C.F.R. Parts 60, 61, and 63, if applicable, in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable.
  - b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit.
  - c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.

[WV Code § 22-5-4(a)(15) and 45CSR13]

#### 3.4. Recordkeeping Requirements

- 3.4.1. **Monitoring information.** The permittee shall keep records of monitoring information that include the following:
  - a. The date, place as defined in this permit and time of sampling or measurements;
  - b. The date(s) analyses were performed;
  - c. The company or entity that performed the analyses;
  - d. The analytical techniques or methods used;
  - e. The results of the analyses; and
  - f. The operating conditions existing at the time of sampling or measurement.

[45CSR§30-5.1.c.2.A., 45CSR13, R13-2778, 4.1.1.]

3.4.2. **Retention of records.** The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of monitoring sample, measurement, report, application, or record creation date. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Where appropriate, records may be maintained in computerized form in lieu of the above records.

[45CSR§30-5.1.c.2.B.]

3.4.3. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.

[45CSR§30-5.1.c. State-Enforceable only.]

3.4.4 Record of Malfunctions of Air Pollution Control Equipment.

For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

- a. The equipment involved.
- <u>b.</u> <u>Steps taken to minimize emissions during the event.</u>
- <u>c.</u> The duration of the event.
- d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
- <u>f.</u> Steps taken to correct the malfunction.

g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[45CSR13, R13-2778, 4.1.4.]

#### 3.5. Reporting Requirements

3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

[45CSR§§30-4.4. and 5.1.c.3.D.]

- 3.5.2. A permittee may request confidential treatment for the submission of reporting required under 45CSR§30-5.1.c.3. pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31. [45CSR§30-5.1.c.3.E.]
- 3.5.3. All notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, mailed first class or by private carrier with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

#### If to the DAQ: If to the US EPA:

Director Associate Director

WVDEP Office of Enforcement and Permits Review

Division of Air Quality (3AP12)

601 57<sup>th</sup> Street SE U. S. Environmental Protection Agency

Charleston, WV 25304 Region III

1650 Arch Street

Phone: 304/926-0475 Philadelphia, PA 19103-2029

FAX: 304/926-0478

- 3.5.4. **Certified emissions statement.** The permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality. **[45CSR§30-8.]**
- 3.5.5. **Compliance certification.** The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ. In addition to the annual compliance certification, the permittee may be required to submit certifications more frequently under an applicable requirement of this permit. The annual certification shall be submitted to the DAQ and USEPA on or before March 15 of each year, and shall certify compliance for the period ending December 31. The permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification.

[45CSR§30-5.3.e.]

- 3.5.6. **Semi-annual monitoring reports.** The permittee shall submit reports of any required monitoring on or before September 15 for the reporting period January 1 to June 30 and on or before March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with 45CSR§30-4.4. **[45CSR§30-5.1.c.3.A.]**
- 3.5.7. **Emergencies.** For reporting emergency situations, refer to Section 2.17 of this permit.

#### 3.5.8. **Deviations.**

- a. In addition to monitoring reports required by this permit, the permittee shall promptly submit supplemental reports and notices in accordance with the following:
  - 1. Any deviation resulting from an emergency or upset condition, as defined in 45CSR§30-5.7., shall be reported by telephone or telefax within one (1) working day of the date on which the permittee becomes aware of the deviation, if the permittee desires to assert the affirmative defense in accordance with 45CSR§30-5.7. A written report of such deviation, which shall include the probable cause of such deviations, and any corrective actions or preventative measures taken, shall be submitted and certified by a responsible official within ten (10) days of the deviation.
  - 2. Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to the Secretary immediately by telephone or telefax. A written report of such deviation, which shall include the probable cause of such deviation, and any corrective actions or preventative measures taken, shall be submitted by the responsible official within ten (10) days of the deviation.
  - 3. Deviations for which more frequent reporting is required under this permit shall be reported on the more frequent basis.
  - 4. All reports of deviations shall identify the probable cause of the deviation and any corrective actions or preventative measures taken.

#### [45CSR§30-5.1.c.3.C.]

b. The permittee shall, in the reporting of deviations from permit requirements, including those attributable to upset conditions as defined in this permit, report the probable cause of such deviations and any corrective actions or preventive measures taken in accordance with any rules of the Secretary.

[45CSR§30-5.1.c.3.B.]

3.5.9. **New applicable requirements.** If any applicable requirement is promulgated during the term of this permit, the permittee will meet such requirements on a timely basis, or in accordance with a more detailed schedule if required by the applicable requirement.

[45CSR§30-4.3.h.1.B.]

#### 3.6. Compliance Plan

N/A

#### 3.7. Permit Shield

- 3.7.1. The permittee is hereby granted a permit shield in accordance with 45CSR§30-5.6. The permit shield applies provided the permittee operates in accordance with the information contained within this permit.
- 3.7.2. The following requirements specifically identified are not applicable to the source based on the determinations set forth below. The permit shield shall apply to the following requirements provided the conditions of the determinations are met.

N/A

#### 3.8. Emergency Operating Scenario

For emergency situations which interrupt the critical supply of natural gas to the public, and which pose a life threatening circumstance to the customer, the permittee is allowed to temporarily replace failed engine(s) as long as all of the following conditions are met:

- a. The replacement engine(s) is only allowed to operate until repair of the failed engine(s) is complete, but under no circumstance may the replacement engine(s) operate in excess of sixty (60) days;
- b. Both the replacement engine(s) and the repaired failed engine(s) shall not operate at the same time with the exception of any necessary testing of the repaired engine(s) and this testing may not exceed five (5) hours;
- c. Potential hourly emissions from the replacement engine(s) are less than or equal to the potential hourly emissions from the engine(s) being replaced;
- d. Credible performance emission test data verifying the emission rates associated with the operation of the substitute engine shall be submitted to the Director within five (5) days;
- e. The permittee must provide written notification to the Director within five (5) days of the replacement. This notification must contain:
  - Information to support the claim of life threatening circumstances to justify applicability of this emergency provision;
  - ii. Identification of the engine(s) being temporarily replaced;
  - iii. The design parameters of the replacement engine(s) including, but not limited to, the design horsepower and emission factors;
  - iv. Projected duration of the replacement engine(s); and
  - v. The appropriate certification by a responsible official.

[45CSR§30-12.7]

# 4.0 Source-Specific Requirements [RBR01, HTR01, HTR02]

#### 4.1 Limitations and Standards

4.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.
[45CSR§2-3.1]

4.2 Monitoring Requirements

N/A

4.3 Testing Requirements

N/A

4.4 Recordkeeping Requirements

N/A

4.5 Reporting Requirements

N/A

4.6 Compliance Plan

N/A

5.0 Source-Specific Requirements (Natural Gas Dehydration Units Not Subject to MACT Standards and being controlled by a Flare Control Device) [DEHY F1, DEHY01]

#### 5.1. Limitations and Standards

5.1.1. No person shall cause, suffer, allow or permit particulate matter to be discharged from any incinerator into the open air in excess of the quantity determined by use of the following formula:

Emissions (lb/hr) = F x Incinerator Capacity (tons/hr)

Where, the factor, F, is as indicated in Table I below:

Table I: Factor, F, for Determining Maximum Allowable Particulate Emissions

Incinerator Capacity: Factor F

A. Less than 15,000 lbs/hr 5.43

B. 15,000 lbs/hr or greater 2.72

Calculation for PM Emissions:

(5.43) x (193.42 acf/min) x (60 min/hr) x (0.0493 lb/cf) x (ton/2000 lb)

= 1.5534 lb/hr

[45CSR§6-4.1][<del>DEHY</del> F1]

5.1.2. Emission of Visible Particulate Matter -- No person shall cause, suffer, allow or permit emission of smoke into the atmosphere from any incinerator which is twenty (20%) percent opacity or greater.

[45CSR§6-4.3][<del>DEHY</del> <u>F1</u>]

5.1.3. No person shall cause, suffer, allow or permit the emission of particles of unburned or partially burned refuse or ash from any incinerator which are large enough to be individually distinguished in the open air.

[45CSR§6-4.5][<del>DEHY</del> <u>F1</u>]

5.1.4. Incinerators, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emission of objectionable odors.

[45CSR§6-4.6][<del>DEHY,</del> F1]

5.1.5. The permittee has defined the facility as a minor source of HAPs for existing source MACT applicability purposes. As a result, the subject facility shall conduct monitoring, testing, and reporting as specified below in order to provide adequate justification for maintaining minor source status. This requirement shall in no way restrict the permittee from conducting more frequent testing to quantify emissions increases.

[40CFR§63.10(b)(3); (Subpart HH)] [**DEHY F1**]

5.1.6. Maximum Throughput Limitation. The maximum wet natural gas throughput to the glycol dehydration unit / still column shall not exceed 10 mmcf/day. Compliance with the Maximum Throughput Limitation shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the monthly throughput at any given time during the previous twelve consecutive calendar months.

[45CSR13, R13-2778, 6.1.1.]

5.1.7 <u>Maximum emissions from the natural gas dehydration unit still vent (DEHY01) shall not exceed the following limits:</u>

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Volatile Organic Compounds	<u>5.66</u>	<u>24.79</u>
<u>n-Hexane</u>	0.06	0.25
Benzene	<u>0.02</u>	<u>0.08</u>
Toluene	0.07	0.29
Ethylbenzene	0.03	0.11
Xylenes	<u>0.29</u>	<u>1.26</u>

[45CSR13, R13-2778, 6.1.2.]

- 5.1.8 For purposes of determining potential HAP emissions at transmission and storage facilities to comply with the requirements in Section 3.1.12, the methods specified in 40 CFR 63, Subpart HHH shall be used. For purposes of determining potential HAP emissions at production-related facilities, the methods specified in 40 CFR 63, Subpart HH (i.e. excluding compressor engines from HAP PTE) shall be used.

  [45CSR13, R13-2778, 6.1.3.]
- 5.1.9. The Questor Q250 flare (F1) subject to this section shall be designed and operated in accordance with the following:
  - a The flare (F1) shall be non-assisted.
  - <u>b.</u> The flare (F1) shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.
  - <u>c.</u> The flare (F1) shall be operated, with a flame present at all times whenever emissions may be vented to them, except during SSM (Startup, Shutdown, Malfunctions) events.
  - d. A flare shall be used only where the net heating value of the gas being combusted is 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or where the net heating value of the gas being combusted is 7.45 MJ/scm (200 Btu/scf) or greater if the flares is non-assisted. The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K \sum_{i=1}^n C_i H_i$$

Where:

 $\underline{\text{H}_{\text{T}}}$ =Net heating value of the sample, MJ/scm; where the net enthalpy per mole of off gas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C.

K=Constant=

$$1.740 \times 10^{-7} \left(\frac{1}{ppmv}\right) \left(\frac{g \cdot \text{mole}}{\text{scm}}\right) \left(\frac{\text{MJ}}{\text{kcal}}\right)$$

where the standard temperature for (g-mole/scm) is 20 °C.

 $\underline{C_i}$ =Concentration of sample component i in ppmv on a wet basis, which may be measured for organics by Test Method 18, but is not required to be measured using Method 18 (unless designated by the Director). H<sub>i</sub>=Net heat of combustion of sample component i, kcal/g-mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 or 88 or D4809-95 if published values are not available or cannot be calculated. n=Number of sample components.

- e. Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity less than 18.3 m/sec (60 ft/sec), except as provided by 5.1.9.f. and 5.1.9.g. of this section. The actual exit velocity of a flare shall be determined by dividing by the volumetric flow rate of gas being combusted (in units of emission standard temperature and pressure), by the unobstructed (free) cross-sectional area of the flare tip, which may be determined by Test Method 2, 2A, 2C, or 2D in appendix A to 40 CFR part 60, as appropriate, but is not required to be determined using these Methods (unless designated by the Director).
- f. Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in 5.1.9.e. of this section, equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec), are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).
- Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in 5.1.9.e. of this section, less than the velocity V<sub>max</sub>, as determined by the calculation specified in this paragraph, but less than 122 m/sec (400 ft/sec) are allowed. The maximum permitted velocity, V<sub>max</sub>, for flares complying with this paragraph shall be determined by the following equation:

 $Log_{10}(V_{max})=(H_T+28.8)/31.7$ 

Where:

V<sub>max</sub>=Maximum permitted velocity, m/sec.

28.8=Constant.

31.7=Constant.

H<sub>T</sub>=The net heating value as determined in 5.1.9.d. of this section

<u>h.</u> Air-assisted flares shall be designed and operated with an exit velocity less than the velocity  $V_{max}$ . The maximum permitted velocity,  $V_{max}$ , for air-assisted flares shall be determined by the following equation:

 $V_{\text{max}} = 8.71 + 0.708(H_T)$ 

Where:

V<sub>max</sub>=Maximum permitted velocity, m/sec.

 $8.\overline{71}$ =Constant.

0.708=Constant.

H<sub>T</sub>=The net heating value as determined in 5.1.9.d of this section.

[45CSR13, R13-2778, 6.1.4.]

5.1.10. The permittee is not required to conduct a flare compliance assessment for concentration of sample (i.e. Method 18) and tip velocity (i.e. Method 2) until such time as the Director requests a flare compliance assessment to be conducted in accordance with section 5.3.3, but the permittee is required to conduct a flare design evaluation in accordance with section 5.4.3. Alternatively, the permittee may elect to demonstrate compliance with the flare design criteria requirements of section 5.1.9. by complying with the compliance assessment testing requirements of section 5.3.3.

[45CSR13, R13-2778, 6.1.5.]

### **5.2.** Monitoring Requirements

5.2.1. In order to demonstrate compliance with the minor source status claimed within 5.1.5, the permittee shall use

GRI-GLYCalc V4 or higher to estimate emissions from the dehydration system. The dehydration system must be accurately defined by actual operating parameters. The WV Division of Air Quality recommends the following actual operating parameters be measured to correspond with the testing and reporting requirements of 5.3.1 when using the Gas Analysis and Process Data, GLYCalc emission modeling method:

- Natural Gas Flowrate: annual, per day, and maximum design capacity (MMscf/time)
- Dry Gas water content at a point directly after exiting the dehydration column and before any additional separation points
- Absorber temperature and pressure
- Lean glycol circulation rate
- Lean glycol water content
- Glycol pump type
- Flash tank temperature and pressure
- Stripping Gas flow rate, if applicable
- Wet gas composition (upstream of the absorber dehydration column) Sampled in accordance with GPA method 2166 and analyzed consistent with GPA extended method 2286 as well as the procedures presented in the GRI-GLYCalc Technical Reference User Manual and Handbook V4.

As an alternative to the "Gas Analysis and Process Data", emission estimating method discussed above, the permittee may elect to incorporate the following alternative calculation methods as provided by GLYCalc V4: [Gas Analysis and ARL Method (R/L+Gas)] or the [GRI ARL Method (for TEG units only)]

These alternative methods can be used to demonstrate compliance with 5.1.5, provided emissions are determined using the procedures documented in the Gas Research Institute (GRI) report entitled "Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions" (GRI-95/0368.1). Additionally, the alternative methods shall also adhere to the recommendations for sampling and analysis of the wet glycol stream as presented in the GLYCalc Technical Reference User Manual and Handbood V4 when applicable.

[45CSR§30-5.1.c]

- 5.2.2 <u>In order to demonstrate compliance with the requirements of 5.1.9.c, the permittee shall monitor the presence or absence of a flare pilot flame using a thermocouple or any other equivalent device, except during SSM events.</u>
  [45CSR13, R13-2778, 6.2.1.]
- 5.2.3. The permittee shall monitor the throughput of wet natural gas fed to the dehydration system on a monthly basis for each glycol dehydration unit.

  [45CSR13, R13-2778, 6.2.2.]

# **5.3.** Testing Requirements

- -5.3.1. Within 180 days of permit issuance or startup, whichever comes later and once within the last 2 years of this permit term, prior to submitting the permit renewal application, the permittee shall determine the contents of the wet natural gas by sampling in accordance with GPA Method 2166 and analyzing according to extended GPA Method 2286 analysis as specified in the GRI GLYCale V4 Technical Reference User Manual and Handbook. As specified in the handbook, the permittee shall sample the wet gas stream at a location prior to the glycol dehydration contactor column, but after any type of separation device, in accordance with GPA method 2166. The permittee may utilize other equivalent methods provided they are approved in advance by DAQ as part of a testing protocol. If alternative methods are proposed, a test protocol shall be submitted for approval no later than 60 days before the scheduled test date.
  [45CSR§30-5.1.c]
- 5.3.2 In order to demonstrate compliance with the flare opacity requirements of 5.1.9.b. the permittee shall conduct a Method 22 opacity test for at least two hours. This test shall demonstrate no visible emissions are observed for more than a total of 5 minutes during any 2 consecutive hour period using 40CFR60 Appendix A Method 22.

The permittee shall conduct this test within one (1) year of permit issuance or initial startup whichever is later. The visible emission checks shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 CFR part 60, appendix A, Method 22 or from the lecture portion of 40 CFR part 60, appendix A, Method 9 certification course.

[45CSR13, R13-2778, 6.3.1.]

- 5.3.3 The Director may require the permittee to conduct a flare compliance assessment to demonstrate compliance with section 5.1.9. This compliance assessment testing shall be conducted in accordance with Test Method 18 for organics and Test Method 2, 2A, 2C, or 2D in appendix A to 40 CFR part 60, as appropriate, or other equivalent testing approved in writing by the Director. Also, Test Method 18 may require the permittee to conduct Test Method 4 in conjunction with Test Method 18.

  [45CSR13, R13-2778, 6.3.2.]
- 5.3.4 In order to demonstrate compliance with 5.1.8. upon request of the Director, the permittee shall demonstrate compliance with the HAP emissions thresholds using GLYCalc Version 3.0 or higher. The permittee shall sample in accordance with GPA Method 2166 and analyze the samples utilizing the extended GPA Method 2286 as specified in the GRI-GLYCalc V4 Technical Reference User Manual and Handbook.

  [45CSR13, R13-2778, 6.3.3.]

#### 5.4. Recordkeeping Requirements

5.4.1. For the purpose of demonstrating compliance with 5.1.2, the permittee shall maintain records of all monitoring data documenting the date and time of each visible emission check, the emission point or equipment/source identification number, the name or means of identification of the observer, and the results of the check(s). The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6-10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9. For an emission unit out of service during the normal monthly evaluation, the record of observation may note "out of service" (O/S) or equivalent.

[45CSR§30-5.1.c]

- 5.4.2 For the purpose of demonstrating compliance with section 5.1.9.c and 5.2.2, the permittee shall maintain records of the times and duration of all periods which the pilot flame was absent.

  [45CSR13, R13-2778, 6.4.1.]
- 5.4.3 For the purpose of demonstrating compliance with section 5.1.9. and 5.3.3, the permittee shall maintain a record of the flare design evaluation. The flare design evaluation shall include, net heat value calculations, exit (tip) velocity calculations, and all supporting concentration calculations and other related information requested by the Director.

  [45CSR13, R13-2778, 6.4.2.]
- 5.4.4 For the purpose of demonstrating compliance with the requirements set forth in sections 5.1.9. and 5.3.4, the permittee shall maintain records of testing conducted in accordance with 5.3.4. [45CSR13, R13-2778, 6.4.3.]
- 5.4.5 The permittee shall document and maintain the corresponding records specified by the on-going monitoring requirements of 5.2. and testing requirements of 5.3.

  [45CSR13, R13-2778, 6.4.4.]

- 5.4.6 For the purpose of demonstrating compliance with section 5.1.9.b, the permittee shall maintain records of the visible emission opacity tests conducted per Section 5.3.2.

  [45CSR13, R13-2778, 6.4.5.]
- 5.4.7 For the purpose of demonstrating compliance with section 5.1.8, the permittee shall maintain a record of all potential to emit (PTE) HAP calculations for the entire affected facility. These records shall include the natural gas compressor engines and ancillary equipment.

  [45CSR13, R13-2778, 6.4.6.]
- 5.4.8. The permittee shall maintain a record of the wet natural gas throughput through the dehydration system to demonstrate compliance with the natural gas throughput limit.
   [45CSR13, R13-2778, 6.4.7.]
- All records required under Section 5.4.2 through 5.4.8. shall be maintained on site or in a readily accessible off-site location maintained by the permittee for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

  [45CSR13, R13-2778, 6.4.8.]

#### 5.5. Reporting Requirements

- 5.5.1. Any violation(s) of the allowable visible emission requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 must be reported in writing to the Director of the Division of Air Quality as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.

  [45CSR§30-5.1.c]
- 5.5.2. The permittee shall submit a report of the sampling required by 5.3.1—Upon request the permittee shall submit a report of the sampling of 5.3.4 to DAQ enforcement within 90 days of conducting said sampling. The permittee shall also supply a copy of the most recent report within the facility's subsequent Title V renewal application. This report shall include a potential to emit (PTE) estimate modeled using GLYCalc V3 or higher software, which incorporates site specific parameters measured in accordance with 5.2.1. The emission estimate shall also incorporate a copy of the lab analysis obtained from the wet gas as well as a description of how and where the sample was taken. The report shall include a reference to all sampling and analytical methods utilized and identification of where the compressor station is located before or after the liquids extraction plant. This report shall be signed by a responsible official upon submittal.
- 5.5.3 If permittee is required by the Director to demonstrate compliance with section 5.3.4, then the permittee shall submit a testing protocol at least thirty (30) days prior to testing and shall submit a notification of the testing date at least fifteen (15) days prior to testing. The permittee shall submit the testing results within sixty (60) days of testing and provide all supporting calculations and testing data.

  [45CSR13, R13-2778, 6.5.1.]
- 5.5.4. Any deviation(s) from the allowable visible emission requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 or 22 shall be reported in writing to the Director of the Division of Air Quality as soon as practicable, but in any case within ten (10) calendar days of the occurrence and shall include at least the following information: the results of the visible

determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.

[45CSR13, R13-2778, 6.5.2.]

Any deviation(s) from the flare design and operation criteria in Section 5.1.9. shall be reported in writing to the Director of the Division of Air Quality as soon as practicable, but in any case within ten (10) calendar days of discovery of such deviation.
 [45CSR13, R13-2778, 6.5.3.]

# 5.6. Compliance Plan

N/A

#### **6.0.** Source-Specific Requirements (EN03)

#### **6.1** Limitations and Standards

- 6.1.1 The quantity of natural gas that shall be consumed in the 600 hp natural gas fired reciprocating engine, AJAX DPC-2803LE (EN03) shall not exceed 4,800 cubic feet per hour or 42.05 x 10<sup>6</sup> cubic feet per year. [45CSR13, R13-2778, 5.1.1.]
- 6.1.2 <u>Maximum emissions from the 600 hp natural gas fired reciprocating engine, AJAX DPC-2803LE</u> (EN03) shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (ton/year)
Nitrogen Oxides	2.65	11.59
Carbon Monoxide	0.66	2.90
Volatile Organic Compounds	1.19	5.21

[45CSR13, R13-2778, 5.1.2.]

#### **6.2** Emission Standards for Owners and Operators

- Owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards in Table 1 to this subpart for their stationary SI ICE. For owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 100 HP (except gasoline and rich burn engines that use LPG) manufactured prior to January 1, 2011 that were certified to the certification emission standards in 40 CFR part 1048 applicable to engines that are not severe duty engines, if such stationary SI ICE was certified to a carbon monoxide (CO) standard above the standard in Table 1 to this subpart, then the owners and operators may meet the CO certification (not field testing) standard for which the engine was certified.
  - [45CSR16, 45CSR13, R13-2778, 7.2.1, 40CFR§60.4233(e)]
- 6.2.2. Owners and operators of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in 40 C.F.R.\\$60.4233 over the entire life of the engine.

  [45CSR16, 45CSR13, R13-2778, 7.2.2, 40CFR\\$60.4234]
- **6.3** Compliance Requirements for Owners and Operators

- 6.3.1. If you are an owner or operator of a stationary SI internal combustion engine and must comply with the emission standards specified in 40 C.F.R.§60.4233(d) or (e), you must demonstrate compliance according to one of the methods specified in paragraphs b.1. and 2. of this section.
  - a. <u>Purchasing an engine certified according to procedures specified in this subpart, for the same model year and demonstrating compliance according to one of the methods specified in 40 C.F.R.§60.4243(a) of this section.</u>
  - <u>Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in 40 C.F.R.§60.4233(d) or (e) and according to the requirements specified in 40 C.F.R.§60.4244, as applicable, and according to 40 C.F.R.§60.4243(b)(2)(i) and (ii).</u>
    - 1. If you are an owner or operator of a stationary SI internal combustion engine greater than 25 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance.
    - 2. If you are an owner or operator of a stationary SI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.

[45CSR16, 45CSR13, R13-2778, 7.3.1, 40CFR§60.4243(b)]

- 6.3.2. Owners and operators of stationary SI natural gas fired engines may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the owners and operators are required to conduct a performance test to demonstrate compliance with the emission standards of §60.4233.
  - [45CSR16, 45CSR13, R13-2778, 7.3.2, 40CFR§60.4243(e)]
- 6.3.3. <u>It is expected that air-to-fuel ratio controllers will be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times.

  [45CSR16, 45CSR13, R13-2778, 7.3.3, 40CFR§60.4243(g)]</u>

#### 6.4. Testing Requirements for Owners and Operators

- 6.4.1. Owners and operators of stationary SI ICE who conduct performance tests must follow the procedures in paragraphs a. through f. of this section.
  - a. Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in 40 C.F.R.§60.8 and under the specific conditions that are specified by Table 2 to this subpart.
  - <u>You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in 40 C.F.R§60.8(c). If your stationary SI internal combustion engine is non-operational, you do not need to startup the engine solely to conduct a performance test; however, you must conduct the performance test immediately upon startup of the engine.</u>
  - c. You must conduct three separate test runs for each performance test required in this section, as

specified in 40C.F.R.§60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour.

d. To determine compliance with the NO<sub>X</sub> mass per unit output emission limitation, convert the concentration of NO<sub>X</sub> in the engine exhaust using Equation 1 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{HP - hr}$$
 (Eq. 1)

Where:

 $ER = Emission rate of NO_X in g/HP-hr.$ 

C<sub>d</sub>= Measured NO<sub>X</sub> concentration in parts per million by volume (ppmv).

 $1.912 \times 10 - 3 =$ Conversion constant for ppm  $NO_X$  to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.

 $\underline{T} = \underline{\text{Time of test run, in hours.}}$ 

<u>HP-hr</u> = <u>Brake</u> work of the engine, horsepower-hour (HP-hr).

e To determine compliance with the CO mass per unit output emission limitation, convert the concentration of CO in the engine exhaust using Equation 2 of this section:

$$ER = \frac{C_d \times 1.164 \times 10^{-3} \times Q \times T}{HP - hr}$$
 (Eq. 2)

Where:

ER = Emission rate of CO in g/HP-hr.

<u>C<sub>d</sub>= Measured CO concentration in ppmv.</u>

 $1.164 \times 10 - 3 =$ Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

 $\underline{T} = \underline{\text{Time of test run, in hours.}}$ 

<u>HP-hr</u> = <u>Brake work of the engine</u>, in <u>HP-hr</u>.

<u>f.</u> For purposes of this subpart, when calculating emissions of VOC, emissions of formaldehyde should not be included. To determine compliance with the VOC mass per unit output emission limitation, convert the concentration of VOC in the engine exhaust using Equation 3 of this section:

ER = 
$$\frac{C_4 \times 1.833 \times 10^{-3} \times Q \times T}{HP - hr}$$
 (Eq. 3)

Where:

ER = Emission rate of VOC in g/HP-hr.

C<sub>d</sub>= VOC concentration measured as propane in ppmv.

 $1.833 \times 10 - 3 =$  Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

 $\underline{T} = \underline{\text{Time of test run, in hours.}}$ 

<u>HP-hr</u> = <u>Brake</u> work of the engine, in <u>HP-hr</u>.

g. If the owner/operator chooses to measure VOC emissions using either Method 18 of 40 CFR part 60, appendix A, or Method 320 of 40 CFR part 63, appendix A, then it has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of this section. The corrected VOC concentration can then be placed on a propane basis using Equation 6 of this section.

$$RF_i = \frac{C_{sa}}{C_{Ai}}$$
 (Eq. 4)

Where:

RF:= Response factor of compound i when measured with EPA Method 25A.

 $\underline{C}_{Mi} = \underline{Measured}$  concentration of compound  $\underline{i}$  in  $\underline{ppmv}$  as  $\underline{carbon}$ .

<u>C<sub>Ai</sub>= True concentration of compound i in ppmv as carbon.</u>

$$C_{inse} = RF_i \times C_{inses}$$
 (Eq. 5)

Where:

<u>C<sub>icon</sub></u>= <u>Concentration of compound i corrected to the value that would have been measured by EPA Method 25A, ppmv as carbon.</u>

Cimeas Concentration of compound i measured by EPA Method 320, ppmv as carbon.

$$C_{Bq} = 0.6098 \times C_{loom}$$
 (Eq. 6)

Where:

<u>C<sub>Peq</sub>=</u> <u>Concentration of compound i in mg of propane equivalent per DSCM.</u>

[45CSR13, R13-2778, 7.4.1, 45CSR16, 40 C.F.R. §§60.4244 (a)-(g)]

6.5. Notification, Reports, and Records for Owners and Operators

- 6.5.1. To demonstrate compliance with sections 6.1.1- 6.1.2, the permittee shall maintain records of the amount of natural gas consumed in EN03. Said records shall be maintained on site or in a readily accessible off-site location maintained by the permittee for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

  [45CSR13, R13-2778, 5.2.]
- 6.5.2. Owners or operators of stationary SI ICE must meet the following notification, reporting and recordkeeping requirements.
  - a. Owners and operators of all stationary SI ICE must keep records of the information in paragraphs a. 1. through 4. of this section.
    - 1. All notifications submitted to comply with this subpart and all documentation supporting any notification.
    - 2. Maintenance conducted on the engine.
    - 3. If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90 and 1048.
    - 4. If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to 40 C.F.R.§60.4243(a)(2), documentation that the engine meets the emission standards.
  - b. For all stationary SI emergency ICE greater than or equal to 500 HP manufactured on or after July 1, 2010, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than or equal to 130 HP and less than 500 HP manufactured on or after July 1, 2011 that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. For all stationary SI emergency ICE greater than 25 HP and less than 130 HP manufactured on or after July 1, 2008, that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.
  - c. Owners and operators of stationary SI ICE greater than or equal to 500 HP that have not been certified by an engine manufacturer to meet the emission standards in 40 C.F.R.§60.4231 must submit an initial notification as required in 40 C.F.R.§60.7(a)(1). The notification must include the information in paragraphs c. 1. through 5. of this section.
    - 1. Name and address of the owner or operator;
    - 2. The address of the affected source;
    - 3. Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
    - 4. Emission control equipment; and
    - 5. Fuel used.
  - d. Owners and operators of stationary SI ICE that are subject to performance testing must submit a copy of each performance test as conducted in 40 C.F.R. \$60.4244 within 60 days after the test has been completed.

[45CSR16, 45CSR13, R13-2778, 7.5.2 (a)-(d), 40 C.F.R.§§60.4245(a)-(d)]